MARYLAND HISTORICAL TRUST
NR-ELIGIBILITY REVIEW FORM

Property Name: North Avenue Bridge (SHA No. BC1208) Inventory Number: B-4521

Address: North Avenue over Light Rail/CSX, Amtrak, Jones Falls, Falls Road, Baltimore

Owner: City of Baltimore

Tax Parcel Number: _____ Tax Map Number: _____

Project: Central Light Rail Double Track-North Line Agency: Mass Transit Administration

Site visit by: John Milner Associates, Inc. Staff: ☐no ☒yes

Name: Kerri Culhane Date: August 1999

Eligibility recommended ☒ Eligibility **not** recommended ☐

Criteria: ☐A ☐B ☒C ☐D Considerations: ☐A ☐B ☐C ☐D ☐E ☐F ☐G ☐None

Is property located within a historic district? ☒no ☐yes Is district listed? ☐no ☐yes

Name of district: _____

Documentation on the property/district is presented in: *(provide name of Report)* ***Cultural Resources Investigations for the Proposed Construction of Double Track for the North Half of Central Light Rail, City of Baltimore and Baltimore County, Maryland*** (John Milner Associates 1999).

Description of Property and Eligibility Determination: *(Use continuation sheet if necessary and attach map and photo)*

The North Avenue Bridge is a multi-level viaduct that spans railroad tracks, the Jones Falls, and Falls Road. It carries the vehicular traffic of North Avenue across the Jones Falls valley. The bridge is 480 feet long and 100 feet wide. It is comprised of three 130-foot-long spans faced in rock-faced marble. Two elliptical arches and twin round-arch tunnels accommodate train and road traffic. A third level is located below the railroad tracks of the central span, and accommodates more tracks. The structure is masonry, most visible in the Falls Road span, the eastern-most span, where the brickwork is staggered to accommodate the skew of the bridge, rather than smooth as a conventional vaulting system might be. The bridge was built between 1893 and 1895. On the western end of the bridge are the twin tunnels of the former Northern Central Railroad, now used by the light rail and CSX. The Amtrak and CSX tracks also use the central span. The deck was altered in 1976-1977. The concrete parapets are dated 1977. A wrought and cast iron balustrade/parapet runs atop the concrete parapet. The deck accommodates two-level sidewalks and 6 lanes of vehicular traffic separated by a Jersey barrier. The bridge was recommended as eligible by Parsons engineering (MHT B-4521) for its unusual engineering solution to spanning the wide valley and transportation corridors; however, no DOE was filed. JMA concurs with the recommendation of potential eligibility for this unique and well-designed structure.

Prepared by: Kerri Culhane, Project Architectural Historian, John Milner Associates, Inc.

Inventory Number: B-4521 (Continuation)

MARYLAND HISTORICAL TRUST REVIEW

Eligibility recommended ☒ **Eligibility not recommended** ☐

Criteria: ☒A ☐B ☒C ☐D **Considerations:** ☐A ☐B ☐C ☐D ☐E ☐F ☐G ☐None

Comments:

Reviewer, Office of Preservation Services	**Date** 8/8/00
Reviewer, NR program	**Date** 8/14/00

Inventory No. B-4521

PRESERVATION VISION 2000; THE MARYLAND PLAN
STATEWIDE HISTORIC CONTEXTS

I. Geographic Region:

- ☐ Eastern Shore (all Eastern Shore counties, and Cecil)
- ☐ Western Shore (Anne Arundel, Calvert, Charles, Prince George's and St. Mary's)
- ☒ Piedmont (Baltimore City, Baltimore, Carroll, Frederick, Harford, Howard, Montgomery)
- ☐ Western Maryland (Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

- ☐ Rural Agrarian Intensification A.D. 1680-1815
- ☐ Agricultural-Industrial Transition A.D. 1815-1870
- ☒ Industrial/Urban Dominance A.D. 1870-1930
- ☐ Modern Period A.D. 1930-Present
- ☐ Unknown Period (☐prehistoric; ☐historic)

III. Historic Period Themes:

- ☐ Agriculture
- ☐ Architecture, Landscape Architecture, and Community Planning
- ☐ Economic (Commercial and Industrial)
- ☐ Government/Law
- ☐ Military
- ☐ Religion
- ☐ Social/Educational/Cultural
- ☒ Transportation

IV. Resource Type:

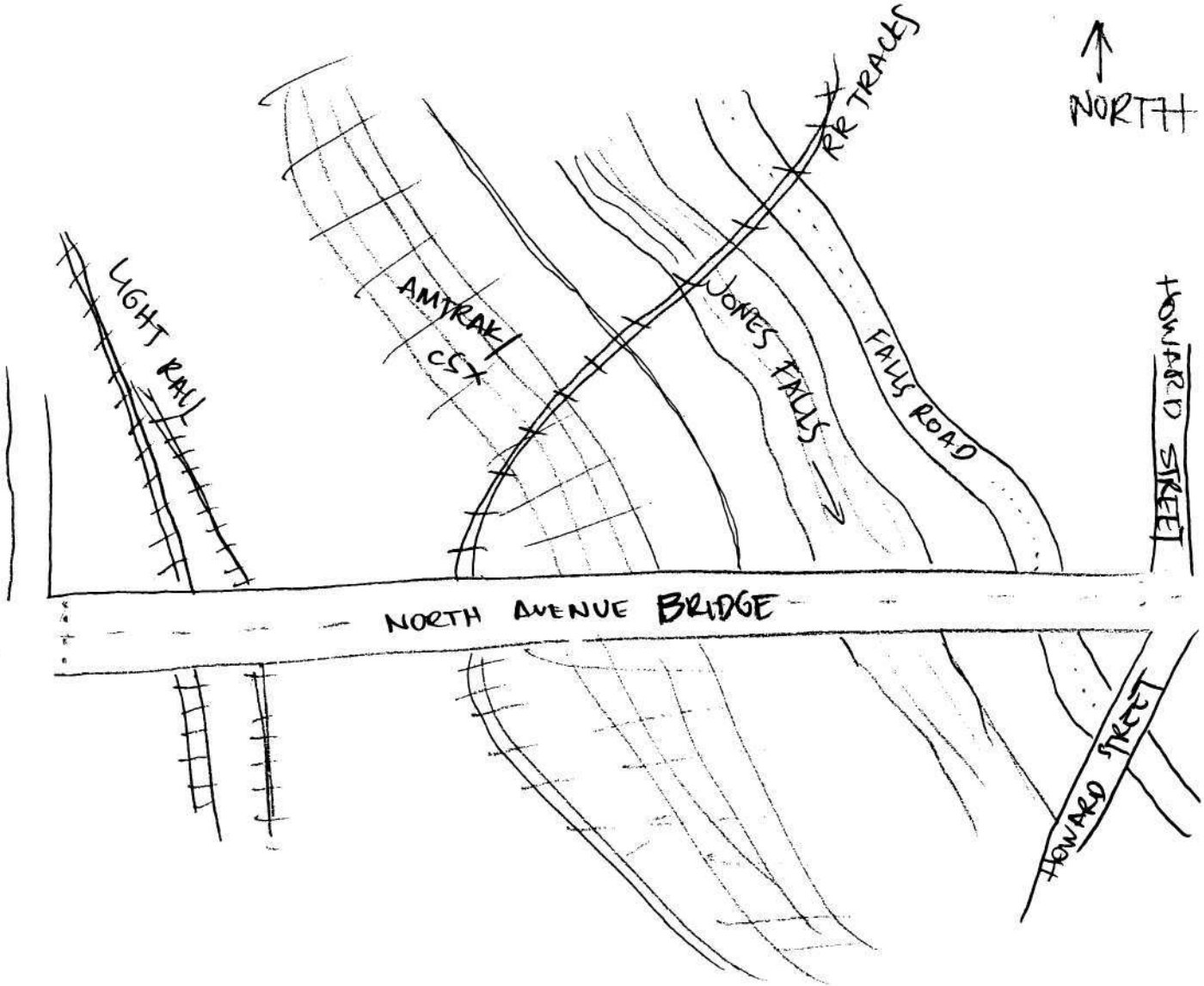
Category: Structure

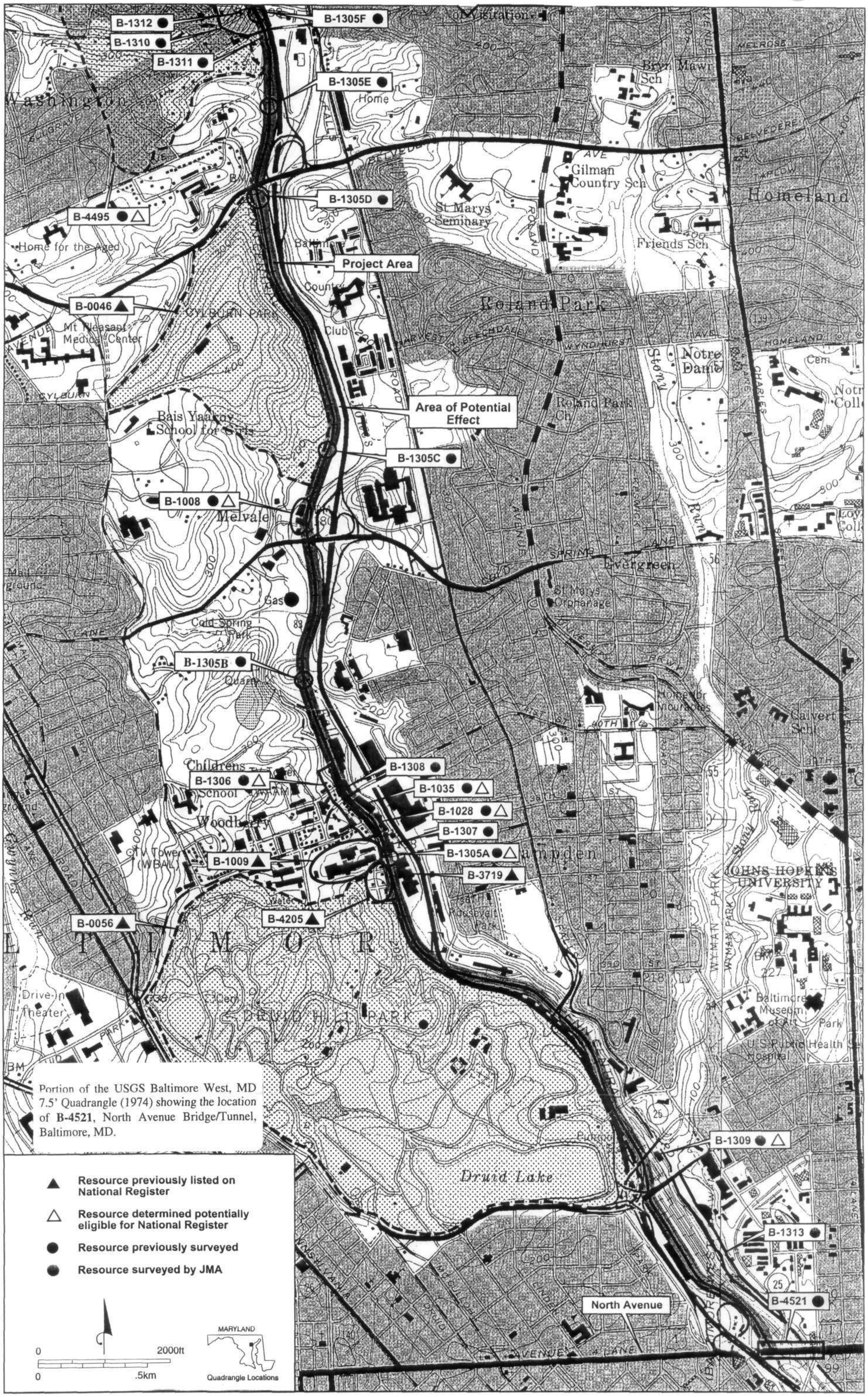
Historic Environment: Urban

Historic Function(s) and Use(s): Transportation; road related (vehicular); bridge

Known Design Source: City of Baltimore, designer/L.B. McCabe and Brother, contractor

NORTH AVENUE BRIDGE
B-4521
no Scale




B-1312
B-1310
B-1311
B-1305F
B-1305E
B-1305D
B-4495
Project Area
B-0046
Area of Potential Effect
B-1305C
B-1008
B-1305B
B-1308
B-1306
B-1035
B-1028
B-1307
B-1305A
B-1009
B-3719
B-0056
B-4205
B-1309
B-1313
B-4521
North Avenue
Washington
Home
Home for the Aged
St Marys Seminary
Gilman Country Sch
Bryn Mawr Sch
Friends Sch
Homeland
Roland Park
Mt Pleasant Medical Center
CYLBURN PARK
Bais Yaakov School for Girls
Notre Dame
Roland Park Ch
Melvale
Evergreen
St Marys Orphanage
Gas
Cold Spring Park
Quarry
Childrens School
Woodberry
TV Tower (WBAL)
Hampden
Calvert Sch
JOHNS HOPKINS UNIVERSITY
Roosevelt Park
Baltimore Museum of Art
U S Public Health Hospital
Drive-in Theater
DRUID HILL PARK
Druid Lake
B A L T I M O R E
Resource previously listed on National Register
Resource determined potentially eligible for National Register
Resource previously surveyed
Resource surveyed by JMA
0
2000ft
0
.5km
MARYLAND
Quadrangle Locations

Portion of the USGS Baltimore West, MD 7.5' Quadrangle (1974) showing the location of **B-4521**, North Avenue Bridge/Tunnel, Baltimore, MD.

Maryland Historical Trust

Maryland Inventory of Historic Properties Number: B-4521

Name: NORTH AVE. OVER FALLS RD., JONES FALLS, AMTRAK, CSX (BC 1208)

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridged received the following determination of eligibly.

MARYLAND HISTORICAL TRUST	
Eligibility Recommended ___X___	Eligibility Not Recommended _____
Criteria: ___A ___B ___C ___D Considerations: ___A ___B ___C ___D ___E ___F ___G __None	
Comments:_____	
_____	
_____	
Reviewer, OPS:__Anne E. Bruder_____	Date:__3 April 2001_____
Reviewer, NR Program:_Peter E. Kurtze_____	Date:___3 April 2001_____

Maryland Inventory of Historic Properties **MHT No.** *B-4521*
Historic Bridge Inventory
Maryland State Highway Administration
Maryland Historical Trust

Name and SHA No. *North Avenue Bridge (BC1208)*
Location:
Street/Road Name and Number: *North Avenue over Falls Road, Jones Falls, Amtrak, CSX, light rail*
City/Town: *Baltimore* ___vicinity
County: *Baltimore*

Ownership: __State __County *x* Municipal __Other

This bridge projects over: *x* Road *x* Railway *x* Water __Land

Is the bridge located within a designated district: __yes *x* no
__NR listed district __NR determined eligible district
__locally designated __other
Name of District _____

Bridge Type:

__Timber Bridge
_Beam Bridge _Truss-Covered _Trestle _Timber-and-Concrete

x Stone Arch

__Metal Truss Bridge

__Movable Bridge
_Swing _Bascule Single Leaf _Bascule Multiple Leaf
_Vertical Lift _Retractile _Pontoon

__Metal Girder
_Rolled Girder _Rolled Girder Concrete Encased
_Plate Girder _Plate Girder Concrete Encased

__Metal Suspension

__Metal Arch

__Metal Cantilever

__Concrete
_Concrete Arch _Concrete Slab _Concrete Beam _Rigid Frame
_Other Type Name _____

B-4521

Description:

Describe Setting:

Bridge BC1208 carries North Avenue over Falls Road, Jones Falls, Amtrak, the CSX System, and the light rail system in the Jones Falls Valley of Baltimore. The bridge is situated in a heavily developed area, including numerous railroad related structures, tracks, and utilities, city streets and structures, highways and bridges. It is bounded by the Jones Falls Expressway to the west, the Howard Street Bridge (BC1405) to the east, a CSX system metal girder railroad bridge to the north, and various railroad junctions to the south. The bridge itself is composed of three levels: the North Avenue roadway on top, Falls Road, Jones Falls, Amtrak, the CSX System, and the light rail on the ground level, and the original "B&P Tunnel" coursing underneath.

Describe Superstructure and Substructure:
(Discuss points identified in Context Addendum, Section C)

This is a seven-span stone arch bridge measuring 888 feet in length and 100 feet in width. The three westernmost arches are the widest at 130 feet each, and span Falls Road, Jones Falls, and the Amtrak. Each of these large arch barrels is constructed of coursed red brick ribs that fan out to form a stepped surface. They rest on large stone piers. The remaining four spans, 27 feet wide each, are clustered in pairs, and overlay the CSX System and the light rail. The former "B&P Tunnel" portal is located between the large arches and the smaller ones, and juts out from the bridge in a triangular shape. The entirety of the exterior of this bridge is covered with carefully cut coursed stone. The bridge carries six lanes of traffic, two sidewalks, and has a raised platform on the southern side of the bridge. It displays an ornamental cast iron railing.

Discuss major alterations:

This bridge underwent modifications to the roadway in 1976 and 1977. At this time the original cast iron railings were removed, rehabilitated, and put back into place. Minor alterations include application of shotcrete or gunnite to the arches, and repointing.

History:

When Built: *1891-1896*
Why Built: *to replace an earlier bridge*
Who Built: *L.B. McCabe and Brother*
Who Designed: *City of Baltimore*
Why Altered: *stabilization of structure*
Was this bridge built as part of an organized bridge building campaign: *no*

Surveyor Analysis:

This bridge may have NR significance for association with:

x A Events _B Person

x C Engineering/Architectural Character

Was the bridge constructed in response to significant events in Maryland or local history?

The North Avenue Bridge was erected as a reaction to several salient factors, the most important being the structural failure of an earlier bridge situated at this location. This five-span bridge was constructed of iron and wood, with stone abutments and piers, and measured approximately 400 feet in total length. The bridge was completed in 1870, after several years of intense controversy over its design. It was finally decided that the bridge would incorporate a span to accommodate the passage of the Northern Central Railroad tracks. Additionally, a single-span stone portal was constructed in 1873 just to the west of the Northern Central tracks, and was the eastern end of the historic Baltimore and Potomac Tunnel. By the late 1880s, despite years of maintenance, the structure was deemed to be in serious disrepair. The wooden sections were decayed, and the iron sections were structurally unsound. In 1889 one of the trusses, measuring 57 feet in length, collapsed and sunk approximately eight inches. By 1890 plans were well underway for construction of the new bridge.

The second major consideration that influenced the construction of the 1890s North Avenue Bridge was the increasingly complicated series of railroad lines and rights-of-way at this location. With the planned convergence of several different railroad lines at the North Avenue junction, including the B&O Railroad's brand new Baltimore Belt Line still under construction, it became necessary to devise a system whereby each set of tracks could be accommodated without causing serious bottlenecks or compromising the structural integrity of the bridge. The solution was to build the bridge on a 35 degree skew to accommodate the railroad tracks. Again, problems arose concerning the design of the bridge, which railroad companies would be granted access through the bridge, which ones would be responsible for constructing their own approaches, and who would finance the various parts of the endeavor. The most troublesome negotiations were with the B&O Railroad. In the end, two sets of "twin" tunnels were constructed at the western end of the bridge, one of which was for the Baltimore Belt Line, although the railroad company was responsible for building the metal girder approach bridge and the girder bridges that were located within the twin tunnels and directly overtop the Pennsylvania Railroad's Baltimore and Potomac Tunnel, which was already in operation.

When the bridge was built and/or given a major alteration, did it have a significant impact on the growth and development of the area?

The construction of this bridge facilitated use of a number of railroad lines, which were instrumental in connecting Baltimore with Washington, Philadelphia, and New York. Additionally, the bridge promoted growth along the North Avenue corridor and encouraged transportation within the City of Baltimore as a whole.

B-4521

Is the bridge located in an area which may be eligible for historic designation and would the bridge add to or detract from the historic and visual character of the possible district?

This bridge is located in an area of high historic potential. The bridge would significantly add to the historic and visual character of any district in which it was included.

Is the bridge a significant example of its type?

Bridge BC1208 is a uniquely significant example of the multiple-span stone arch bridge and potentially eligible under Criterion C for its engineering character. Because the bridge was required to accommodate both a complicated junction of railroad tracks and a river, the design was not typical of standard stone arch bridges. The elliptical shape of the eastern arches, for example, arose from the necessity of a single span to cover wide distances, and it differs from most other stone arches of the 19th century, whose arches were round or semi-circular.

Does the bridge retain integrity of the important elements described in the Context Addendum?

Bridge BC1208 retains historic integrity of location, design, setting, materials, workmanship, feeling and association. Although the roadway has been replaced in the past, the bridge still retains nearly all of its original components, including the stone arch ring and barrels, piers, and abutments.

Is the bridge a significant example of the work of the manufacturer, designer, and/or engineer and why?

This bridge is truly unique in terms of its design and construction. It is potentially eligible under Criterion C for its engineering design, which was created specifically to accommodate a series of particular railroad tracks.

Should this bridge be given further study before significance analysis is made and why?

No further evaluation is necessary to determine National Register significance. However, additional research concerning the history of this bridge and its relationship to the surrounding landscape may be useful in providing a more complete picture of the bridge's background.

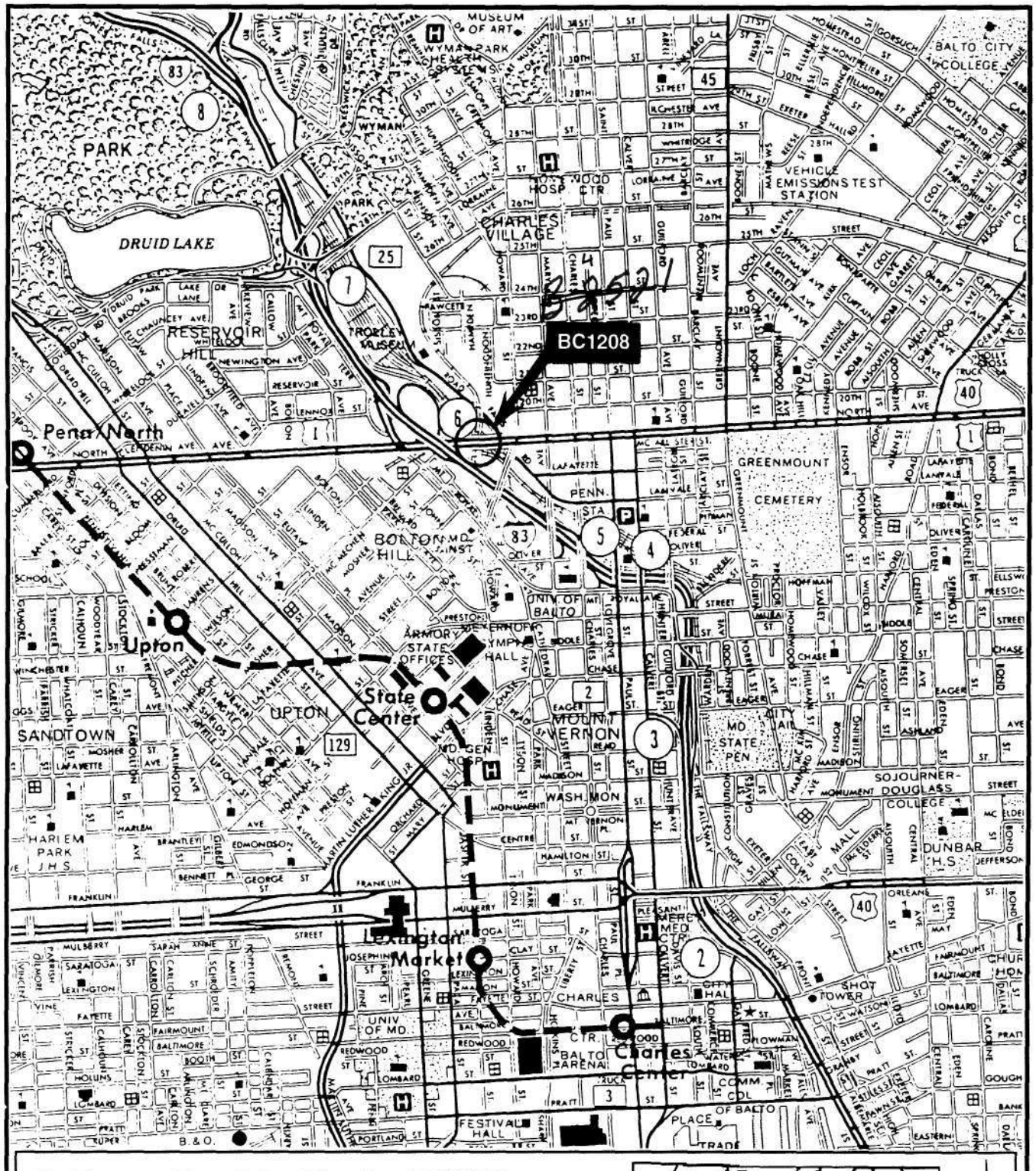
Provide black and white prints and negatives and color slides of bridge, details, and setting labeled according to NR Bulletin 16A and Maryland Supplement to Bulletin 16A.

Provide a photocopy USGS map illustrating the location of the bridge.

Surveyor:

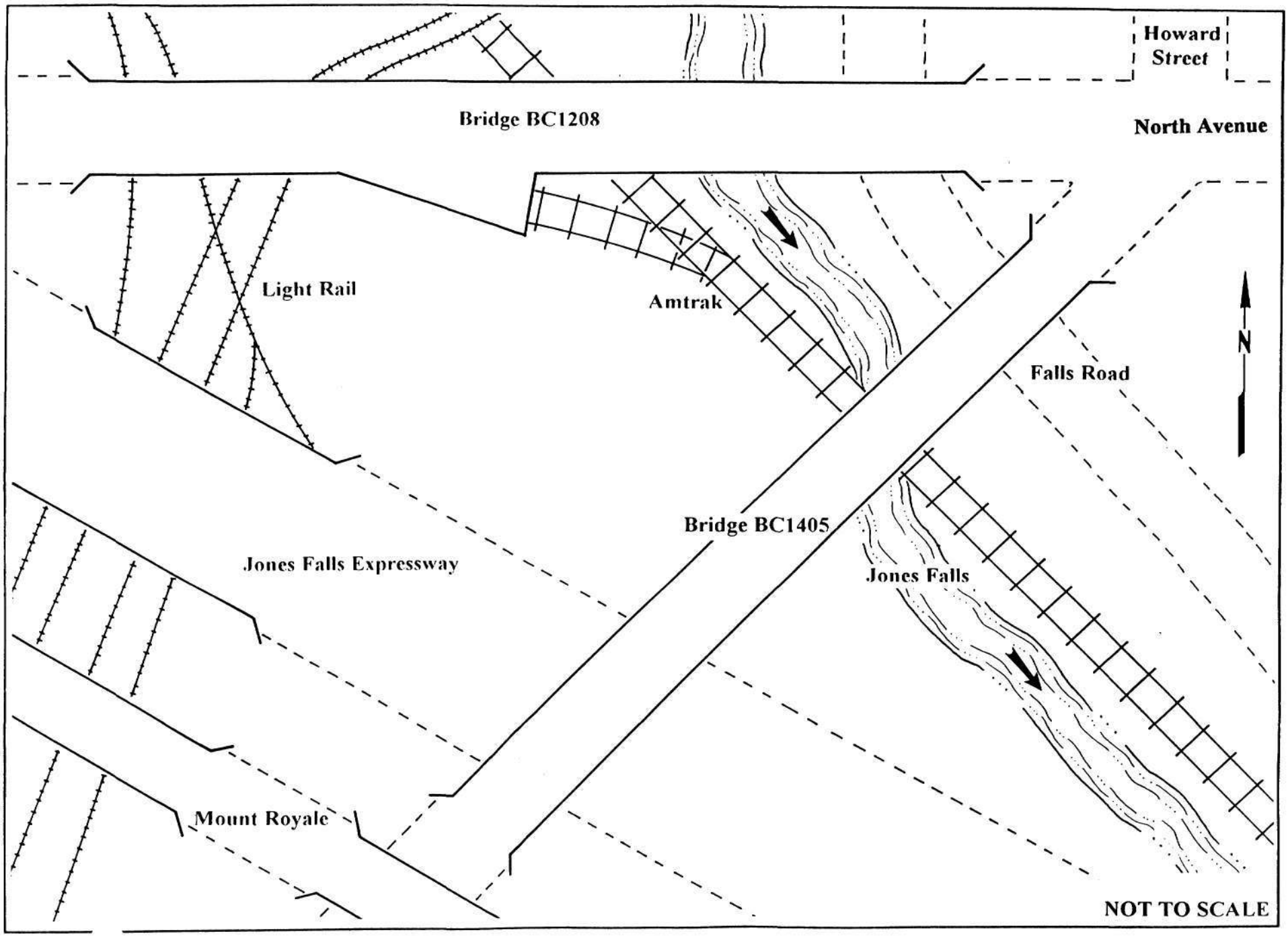
Name:	Alice Crampton/Julie Abell	**Date:**	12/2/94
Organization:	Parsons Engineering Science, Inc.	**Telephone:**	(703) 591-7575
Address:	10521 Rosehaven Street Fairfax, Virginia 22030-2899		

B-4521



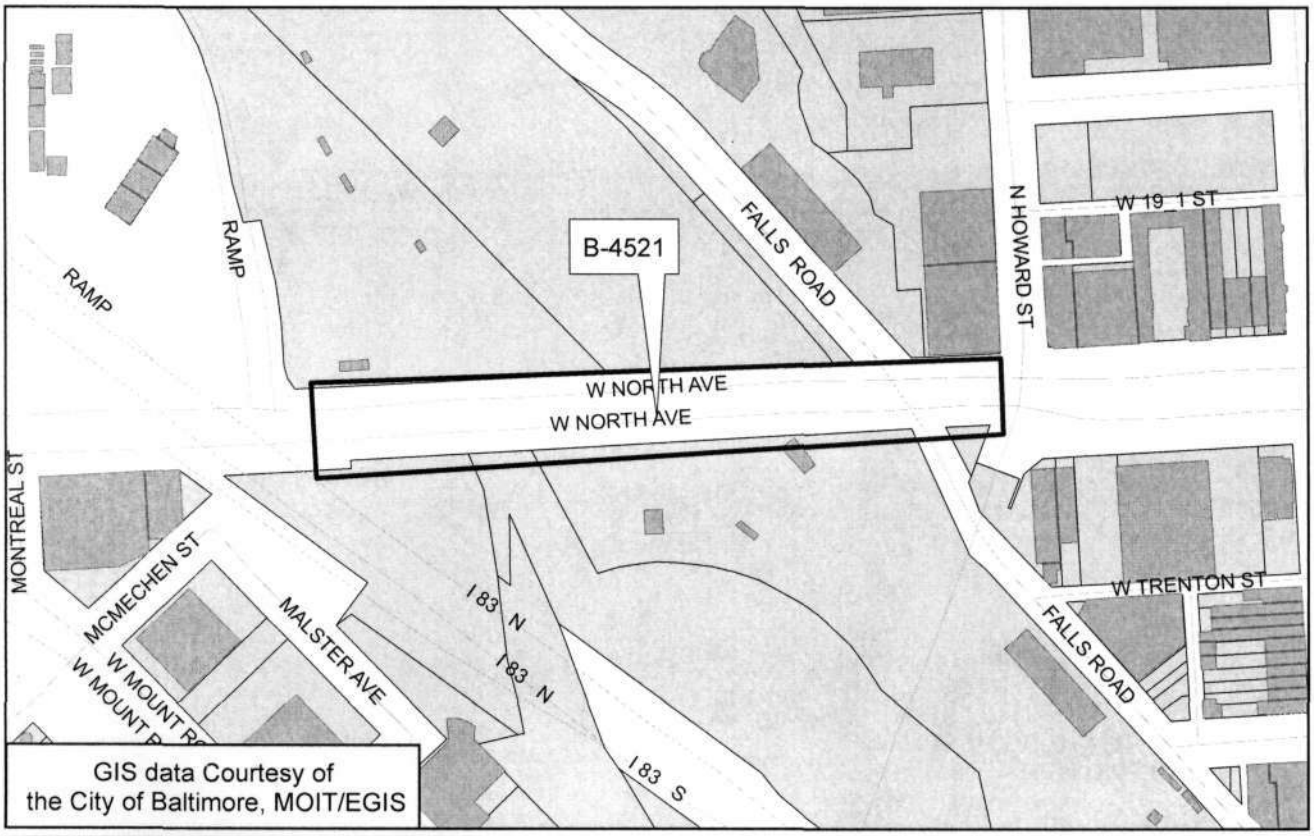
Baltimore City - Map Number BC1208

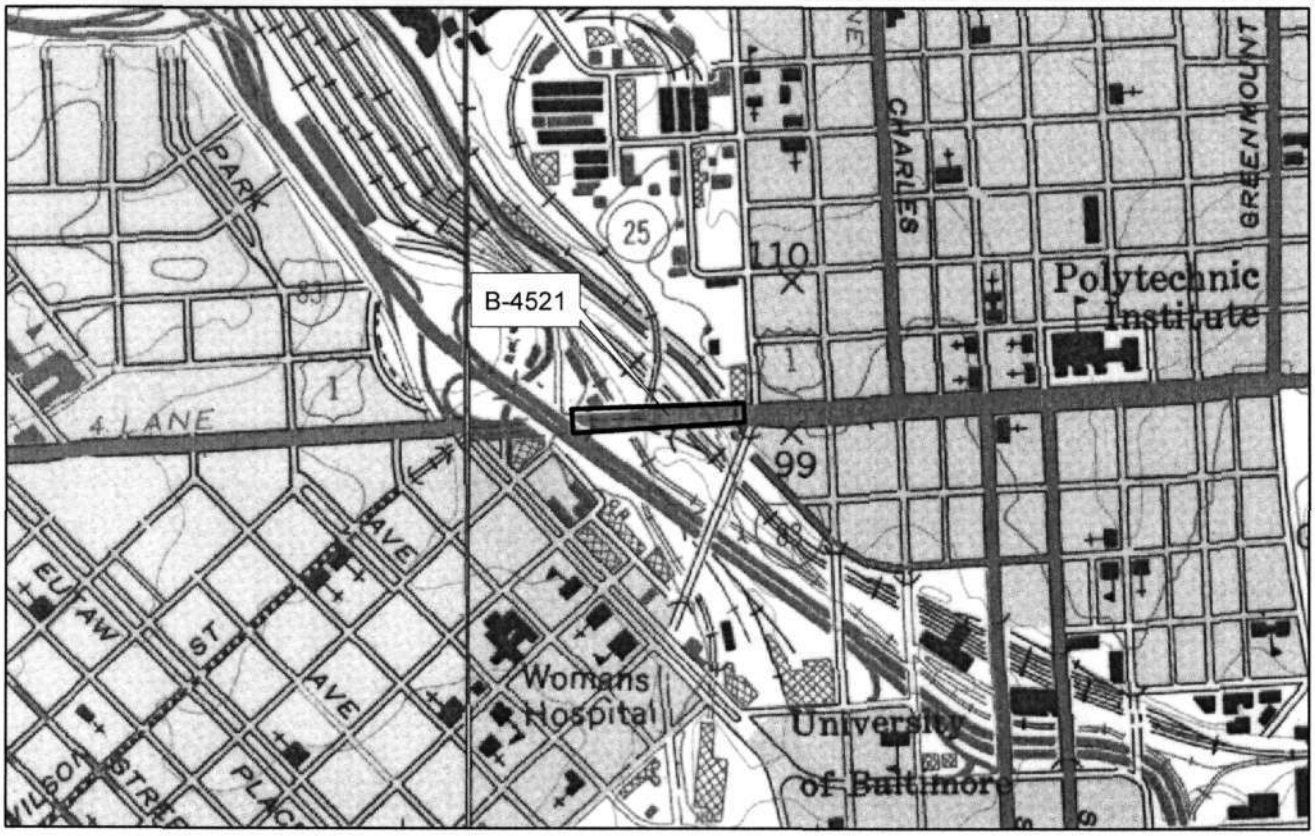
North Avenue over Jones Falls Road, AMTRAK, CSX, and the light rail system


Howard Street
Bridge BC1208
North Avenue
Light Rail
Amtrak
N
Falls Road
Bridge BC1405
Jones Falls Expressway
Jones Falls
Mount Royale
NOT TO SCALE

B-4521

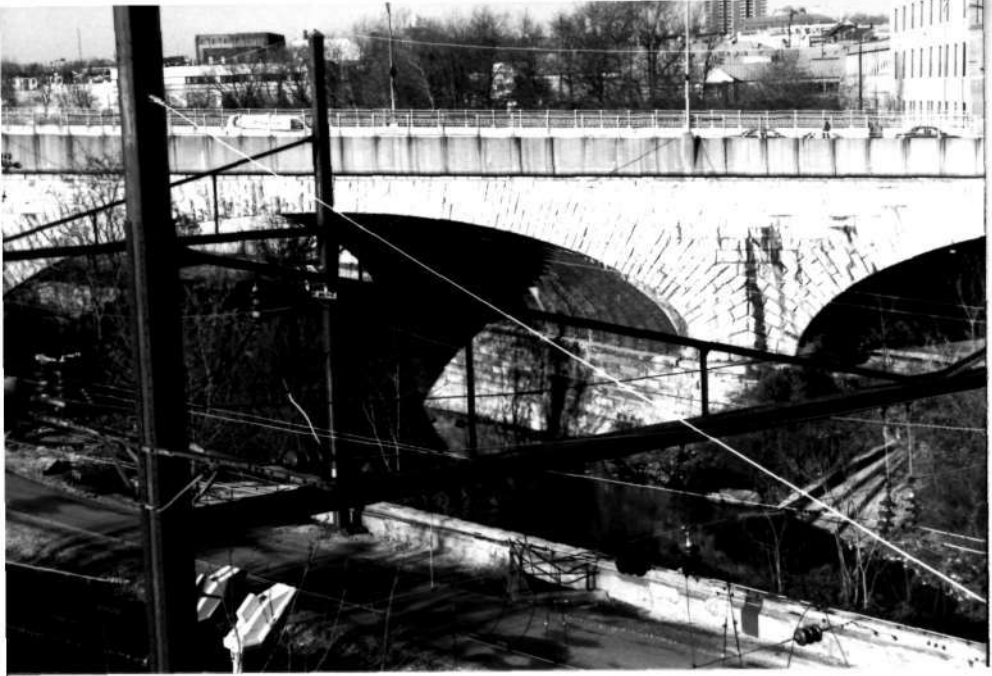
B-4521
North Avenue Bridge (BC1208)
North Avenue over Falls Road
Baltimore City
Baltimore East Quad





B-4521
North Avenue Bridge (BC1208)
Baltimore County, Maryland
Julie Abell
12/94
Maryland State Highway Administration
South elevation
1 of 15

B-4521
North Avenue Bridge (BC1208)
Baltimore County, Maryland
Julie Abell
12/94
Maryland State Highway Administration
South elevation, detail
2 of 15



B-4521
North Avenue Bridge (BC 1208)
Baltimore County, Maryland
Julie Abell
12/94
Maryland State Highway Administration
South elevation, detail
3 of 15


WASHWORKS

B-4521
North Avenue Bridge (BC1208)
Baltimore County, Maryland
Julie Abell
12/94
Maryland State Highway Administration
South elevation, detail
4 of 15

B-4521
North Avenue Bridge (BC1208)
Baltimore County, Maryland
Julie Abell
12/94
Maryland State Highway Administration
South elevation, detail
5 of 15

B-4521
North Avenue Bridge (BC1208)
Baltimore County, Maryland
Julie Abell
12/94
Maryland State Highway Administration
North elevation, detail
6 of 15

B-4521
North Avenue Bridge (BC1208)
Baltimore County, Maryland
Julie Abell
12/94
Maryland State Highway Administration
North elevation, detail
7 of 15

B-4521
North Avenue Bridge (BC1208)
Baltimore County, Maryland
Julie Abell
12/94
Maryland State Highway Administration
North elevation, detail
8 of 15

B-4521
North Avenue Bridge (BC1208)
Baltimore County, Maryland
Julie Abell
12/94
Maryland State Highway Administration
North elevation, detail
9 of 15

B-4521
North Avenue Bridge (BC1208)
Baltimore County, Maryland
Julie Abell
12/94
Maryland State Highway Administration
North elevation, detail
10 of 15

B-4521
North Avenue Bridge (BC1208)
Baltimore County, Maryland
Julie Abell
12/94
Maryland State Highway Administration
North elevation, detail
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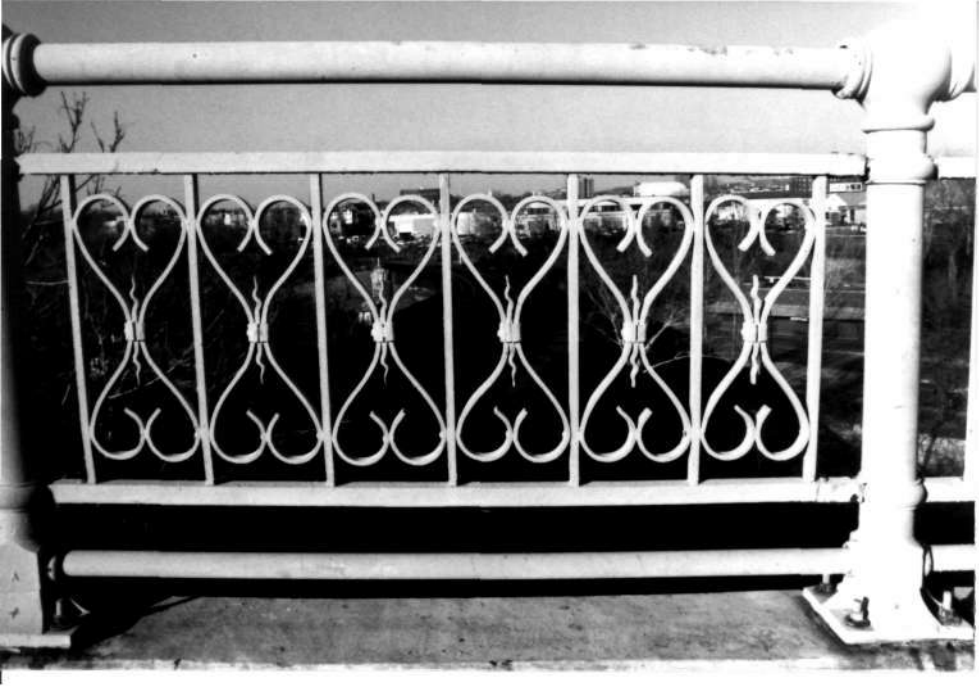
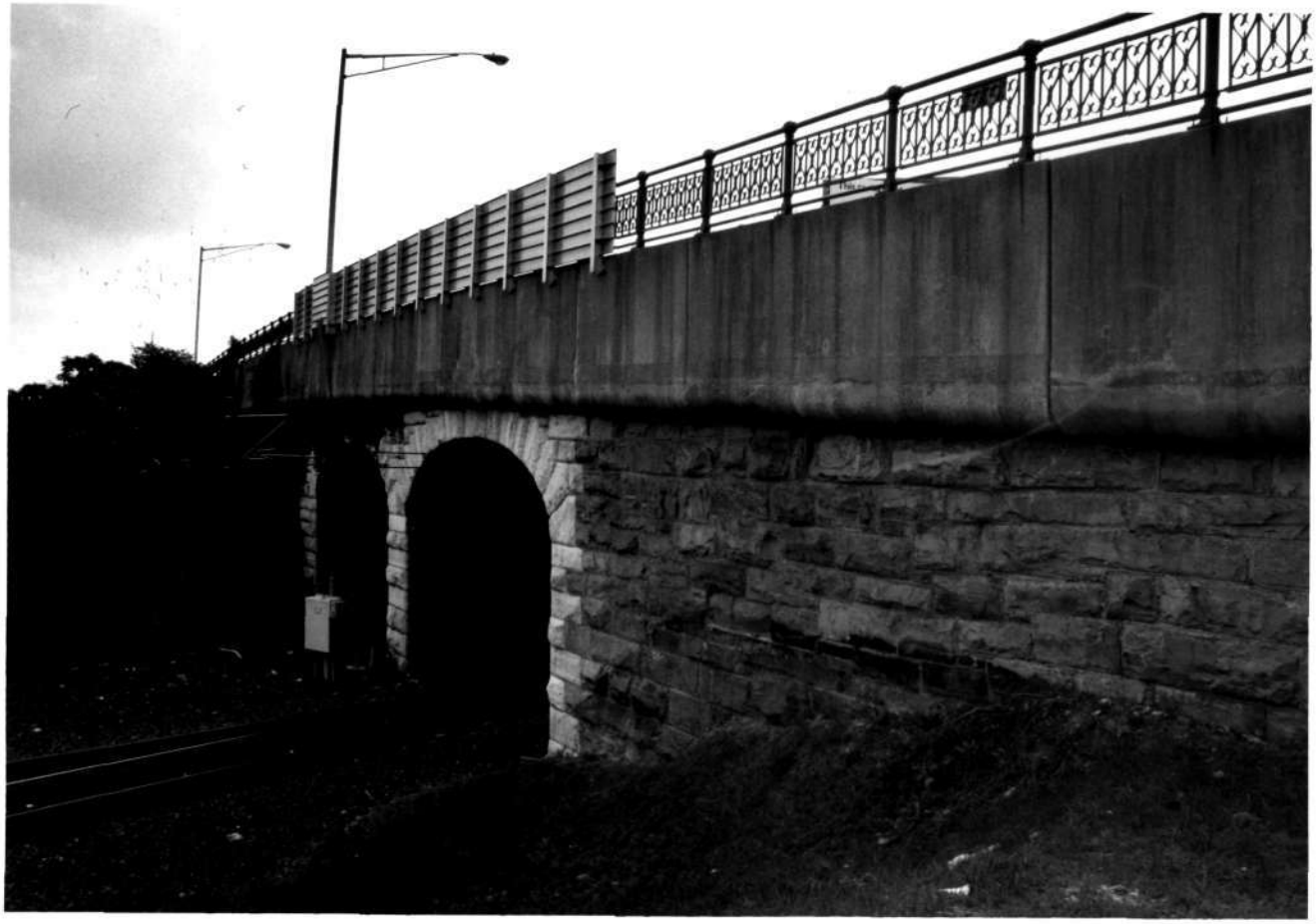
North Avenue Bridge (BC1208)
Baltimore County, Maryland
Julie Abell
12/94
Maryland State Highway Administration
North elevation, detail
12 of 15

B-4521
North Avenue Bridge (BC1208)
Baltimore County, Maryland
Julie Abell
12/94
Maryland State Highway Administration
Approach looking east
13 of 15

B-4521
North Avenue Bridge (BC 1208)
Baltimore County, Maryland
Julie Abell
12/94
Maryland State Highway Administration
Approach looking west
14 of 15



B-4521
North Avenue Bridge (BC1208)
Baltimore County, Maryland
Julie Abell
12/94
Maryland State Highway Administration
Ornamental metal railing, detail
15 of 15



B-4521
NORTH AVENUE BRIDGE
BALTIMORE CITY, MD
K. CULHANE

MDSHPO
8/1999

TWIN TUNNELS OF NCR/LIGHT RAIL, WEST END OF BRIDGE.
VIEW OF NORTH ELEVATION, LOOKING SOUTHEAST

1/7

B-4521
North Avenue Bridge
Baltimore, MD

K. CULHANE
8/1999
MD SHPO

Falls Road passing under east arch of bridge
view to south

2/7

B-4521
NORTH AVE. BRIDGE
Baltimore, MD

K. CULHANE

8/1999
MD SHPO

DETAIL OF BRICK WORK AND MARBLE FACING, EASTERN ARCH OVER FALLS ROAD. VIEW TO S/SW

3/7

B-4521
NORTH AVE BRIDGE
BALTIMORE, MD.
K. CURRAN
8/1999
MDSHPO
DETAIL, ABUTMENT AND EASTERN ARCH OVER FALLS ROAD
VIEW TO EAST.

4/7

B-4521
NORTH AVE. BRIDGE
BALTIMORE, MD
K CULHANE
8/1999
MD SHPO
DETAIL, PIER/MARBLE FACING BETWEEN FALLS ROAD AND JONES FALLS ARCHES. VIEW TO SW.

5/7

B-4521
North Avenue Bridge
Baltimore City, MD
K. CULLANE
8/1999
MDSHPO

CAST AND WROUGHT IRON RAILING/PARAPET. VIEW TO NORTHEAST.

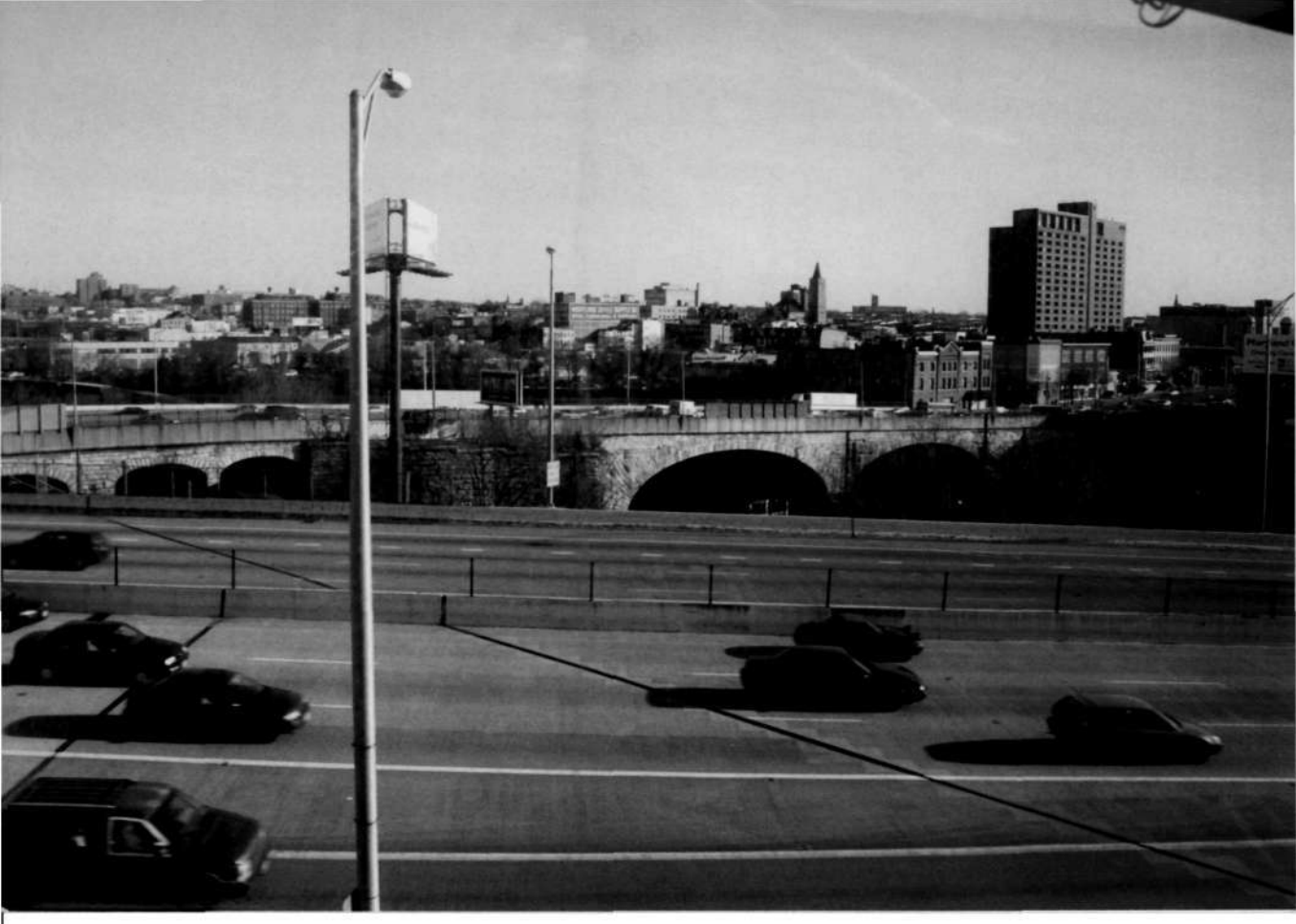
6/7

B-4521
North Avenue Bridge
Baltimore City, MD

K. CURHANE
8/1999
MDSHPO

DECK OF BRIDGE, VIEW TO EAST. WESTBOUND TRAVEL LANE AND SIDEWALK.

7/7



B-4521

North Approach Bridge

Baltimore, ND

K. Culhane

2/2000

NDSHPO

View to northeast.

B-4521

North Avenue Bridge

Baltimore, MD

K. Culhane

2/2000

MD SHPO

South elevation, west end. Detail of stonework. View to north/northwest.

B-4521

North Avenue Bridge

Baltimore, MD

K. Culhane

2/2000

MDSHPO

Railroad tunnels view to northeast

B.4521

North Avenue Bridge

Baltimore, MD

K. Culhane

2/2000

MDSHPO

Railroad tunnels. View to northeast.